

HCG-520 Power Supply

User's Manual

USER'S MANUAL
HCG SERIES
HCG-520 POWER SUPPLY

HIGH CURRENT POWER, LOW COST POWER SUPPLY

The HCG-520, part of Antec's High Current Gamer Series of power supplies, is the perfect combination of power and efficiency. Delivering 520 continuous watts of power, the HCG-520 features a high-power +12V rail and special heavy-duty High Current connectors and cabling that supply extreme levels of power. At the same time, the HCG-520 delivers superb efficiency thanks to its 80 PLUS® Bronze Certification and Active PFC. Highest-quality gold-plated connectors, Japanese-brand capacitors and quiet 135 mm double ball bearing fans complete the package.

STANDARDS AND FEATURES

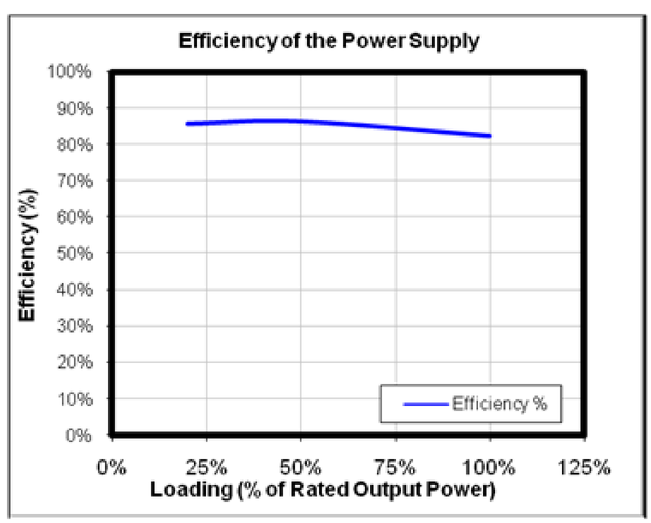
The connectors and power specifications of the HCG-520 PSU are all compatible with ATX12V v2.3 and EPS12V v2.91 specifications. The HCG-520 features Universal Input, which automatically senses when you connect the power supply to any AC power source between 100~240V without setting a voltage switch. This power supply also features Active Power Factor Correction (Active PFC), which improves the power factor value of the power supply by altering the input current wave shape, helping to power transmission across the grid.

SYSTEM PROTECTION

A variety of industrial-grade safety circuitry will help protect your computer: OVP (Over Voltage Protection), SCP (Short Circuit Protection), OPP and OCP (Over Current Protection). Sometimes the PSU will "latch" into a protected state. You will need to power off the PSU and clear the fault before it will function again. There are no user-replaceable fuses in your HCG-520.

80 PLUS® CERTIFICATION

80 PLUS® certification is the most widely recognized independent standard in power supply efficiency. An 80 PLUS® certified power supply uses less energy and generates less heat to stay cooler, run quieter and last longer. The HCG-520 has been 80 PLUS® Bronze certified to be at least 82% efficient at a wide range of operating loads; this will lower your operating costs and help protect the environment.



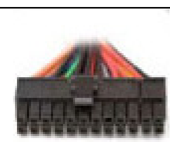
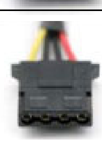
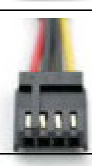
Power Output & Connectors

The HCG-520 power supply distributes power on separate rails. Some rails require a minimum load in order to run. To see the output capacity and regulation for each different voltage, see Table 1. A list of all available power connectors can be found in Table 2.

Table 1

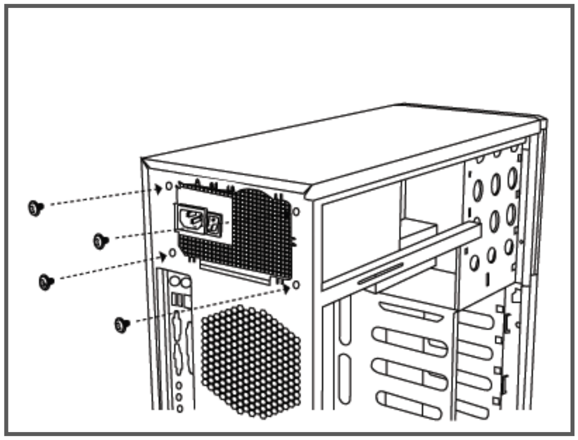
Output Voltage	Load Max.	Regulation	Ripple & Noise
+3.3V	24A	±5%	< 50 mV
+5V	24A	±5%	< 50 mV
+12V	40A	±5%	< 120 mV
–12V	0.8A	±10%	< 120 mV
+5VSB	2.5A	±5%	< 50 mV

Table 2

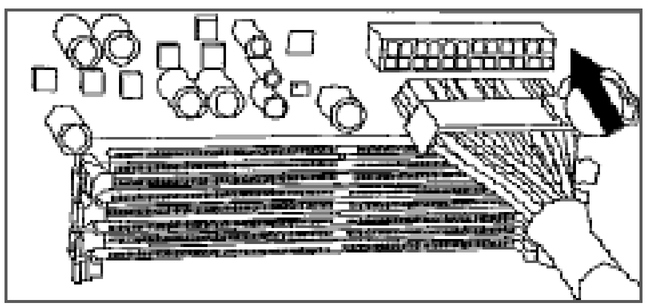
Quantity	Connector	Description
1		24-pin (20 + 4) main connector
1		8-pin (4 + 4) ATX12V / EPS12V
2		8-pin (6 + 2) PCI-E
6		SATA
6		Molex
1		Floppy

INSTALLATION:

1. Install the HCG-520 PSU into either the top or bottom of your case with the four screws provided. Refer to your case manual if you are unsure where the power supply should be installed.



2. Connect the 24-pin (20 + 4) main power connector to your motherboard. If your motherboard uses a 20-pin connector, detach the 4-pin attachment on the 24-pin connector.
   Note: The detachable 4-pin section cannot be used in place of a 4-pin +12V connector.



3. Connect the 8-pin (4 + 4) connector for the CPU.
   Note: Please also refer to your motherboard user's manual for any special instructions.

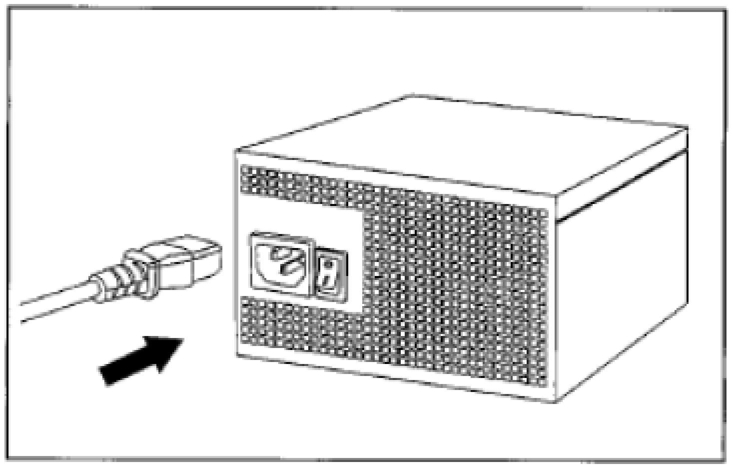
4. Connect the PCI-E connector(s) to your graphics card(s). PCI-E graphics cards use different amounts of power. For some, a single 6-pin connector is sufficient, while more powerful cards use multiple connectors, including the advanced 8-pin PCI-E connector. The 8-pin (6 + 2) PCI-E connectors on the HCG-520 can be used as either 6- or 8-pin connectors.

5. Connect all Molex/SATA connector(s) to your hard drives, optical drives (CD/DVD/BluRay™) and other accessories. Please note that some devices will use either the older 4-pin Molex connectors, while others will use the newer 15-pin SATA connector. 4-pin Molex connectors have two black wires, a yellow, and a red. The SATA connector has an additional orange power wire.

6. Connect your floppy drive (if present) using the supplied FDD connector shown in Table 2.

7. When you have all the connections secured, connect the AC power cord to the power supply AC inlet, making sure the use the heavy-duty cord supplied with your HCG-520.

8. Turn the switch on the PSU to the “|” position.



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